

## 2004 Water Quality Assessment (Final) - Category 5 Listings for WRIA 23

WRIA	Listing ID	Category	98 List?	Waterbody Name Basis	Location Information	Parameter	Remarks	Medium
23	41432	5	N	<b>ALLEN CREEK</b> Erickson, D. and Matthews, W., (2002), station BECM2.6T shows 1 sample exceeded the criterion in year 2003 and 2 samples exceeded the criterion in year 2002.	XO13OJ 0 16N 02W 06	Dissolved oxygen		Water
23	41969	5	N	<b>BEAVER CREEK</b> Erickson, D. and Matthews, W., (2002), station BCGAGEDN shows a total of 15 samples in years 1995, 1996, 1997, 1998, 1999, and 2000 exceeded the chronic criterion and a total of 7 samples in year s 1995, 1996, 1997, and 1998 exceeded the acute criterion.	HA04TR 2.862 16N 02W 06	Ammonia-N		Water
23	41970	5	N	<b>BEAVER CREEK</b> Erickson, D. and Matthews, W., (2002), station BCGAGEUP shows a total of 9 samples in years 1996, 1997, 1998, and 1999 exceeded the chronic criterion and a total of 2 samples in year 1998 exceeded the acute criterion.	HA04TR 5.686 16N 02W 08	Ammonia-N		Water
23	41430	5	N	<b>BEAVER CREEK</b> Erickson, D. and Matthews, W., (2002), station BCGAGEDN shows 2 samples exceeded the criterion in year 2003 and 2 samples exceeded the criterion in year 2002.	HA04TR 2.862 16N 02W 06	Dissolved oxygen		Water
23	41431	5	N	<b>BEAVER CREEK</b> Erickson, D. and Matthews, W., (2002), station BCGAGEUP shows 2 samples exceeded the criterion in year 2003 and 2 samples exceeded the criterion in year 2002.	HA04TR 5.686 16N 02W 08	Dissolved oxygen		Water
23	9490	5	N	<b>BEAVER CREEK</b> Erickson, D. and Matthews, W., (2002), station BCGAGEUP shows that 9 of 28 samples exceed the criterion. Erickson, D. and Matthews, W., (2002), station BCGAGEUP shows that 5 of 9 samples exceed the criterion. Sargeant et al. (2002) station BECM4.2 (BEAVER CK AT CASE RD) shows 1 excursions beyond the criterion out of 2 samples collected between 11/97 - 09/00. Sargeant et al. (2002) station BECM4.2 (BEAVER CK AT CASE RD) shows 1 excursions beyond the criterion out of 1 samples collected between 11/97 - 09/00.	HA04TR 5.686 16N 02W 08	pH	Changed from Category 2 to Category 5 on 01/14/05 due to consolidation with Listing IDs 41278 and 41279. -kk	Water
23	41277	5	N	<b>BEAVER CREEK</b> Erickson, D. and Matthews, W., (2002), station BCGAGEDN shows that 12 of 28 samples exceed the criterion.	HA04TR 2.862 16N 02W 06	pH		Water

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23	9971	5	N	<b>BERWICK CREEK</b> Sargeant et al. (2002) station BERW1.7 (BERWICK CK AT BOROVEC RD) shows the geometric mean of 238 exceeds the criterion and that 67 % of the samples exceeds the percentile criterion from 3 samples collected during 1998.; Sargeant et al. (2002) station BERW1.7 (BERWICK CK AT BOROVEC RD) shows the geometric mean of 361 exceeds the criterion and that 53 % of the samples exceeds the percentile criterion from 15 samples collected during 1999.;	KB60UI 2.158 13N 02W 10	Fecal Coliform	Water	
23	6291	5	Y	<b>BLACK LAKE</b> Phase I State Clean Lakes Restoration Project grant awarded in1994 was declined by Thurston County which had applied for the grant. Problems Encountered: Recreational uses have been severely curtailed due to severe blue-green algae blooms. Complaints have been made about skin irritation after swimming from contact with algae. Area residents and resort operators report that frequency and longevity of algae blooms have been increasing in recently years.	GW14BM 45.313 18N 02W 32	Total Phosphorus	Water	
23	7748	5	N	<b>CARLISLE LAKE</b> Completed Phase I State Clean Lakes Restoration Project in 1985 - Problems Encountered: Blue-green algae, tributary nutrient inputs, aquatic macrophytes, high turbidity, fecal coliform bacteria.	BW57UE 13N 01E 30	Fecal Coliform	Water	Completed Phase II State Clean Lakes Restoration Project 1991: Moore, 1990. Control measures implemented based the Phase I study - sediment removal/dredging, watershed nutrient management (dairy waste BMPs, stream bank fencing). Fecal coliform data were previously submitted only in hardcopy form. The water segment is listed as Category 5 based on the 1998 assessment.
23	6328	5	N	<b>CARLISLE LAKE</b> Completed Phase I State Clean Lakes Restoration Project in 1985 - Problems Encountered: Blue-green algae, tributary nutrient inputs, aquatic macrophytes, high turbidity, fecal coliform bacteria.	BW57UE 13N 01E 30	Total Phosphorus	Water	Completed Phase II State Clean Lakes Restoration Project 1991: Moore, 1990. Control measures implemented based the Phase I study - sediment removal/dredging, watershed nutrient management (dairy waste BMPs, stream bank fencing).
23	36354	5	N	<b>CHEHALIS RIVER</b> Era-Miller et al. 2002, show an excursion beyond the National Toxic Rule criterion in a 5 fish composite of Mountain whitefish filets sampled in 1998.	DS29ZH 108.61 14N 03W 12 4	Dioxin	Tissue	
23	8741	5	Y	<b>CHEHALIS RIVER</b> Davis, et al 1995. edible mountain white fish tissue exceed the criterion.	DS29ZH 110.29 14N 02W 07 3	Total PCBs	Tissue	
23	15915	5	N	<b>CHEHALIS RIVER</b> Hallock, 2002. shows 4 excursions beyond the criterion out of 12 samples collected between 1992 and 2001 derived by the difference between the upstream station 23A160 (Chehalis R @ Dryad) and the downstream station 23A130 (Chehalis R @ Claquato).	DS29ZH 128.78 13N 03W 02 7	Turbidity	Water	

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23	12536	5	N	<b>CHEHALIS RIVER, S.F.</b> Schlorff, 1999. show 6 excursions beyond the criterion out of 11 measurements made at the Boistfort Road Bridge during 1998-1999.  Schlorff, 1999. show 2 excursions beyond the criterion out of the difference of 6 measurements made at the Boisfort Road Bridge and the Wildwood Road Bridge during 1998-1999.	<b>AR82EA 9.238 12N 04W 01</b>	<b>pH</b>	Low pH	<b>Water</b>
23	12537	5	N	<b>CHEHALIS RIVER, S.F.</b> Schlorff, 1999. show 4 excursions beyond the criterion out of 10 measurements made at the Wildwood Road Bridge during 1998-1999.	<b>AR82EA 15.963 12N 04W 24</b>	<b>pH</b>	Low pH	<b>Water</b>
23	36355	5	N	<b>DILLENBAUGH CREEK</b> Era-Miller et al. 2002, show an excursion beyond the National Toxic Rule criterion in a 5 fish composite of Cutthroat Trout fillets sampled in 1998.	<b>EV39SR 0.758 14N 02W 38</b>	<b>Dioxin</b>		<b>Tissue</b>
23	12534	5	N	<b>LAKE CREEK</b> Schlorff, 1999. show 8 excursions beyond the criterion out of 12 measurements made at the Curtis Hill Road Bridge during 1998-1999.	<b>VY01TK 0 13N 03W 30</b>	<b>pH</b>	Low pH	<b>Water</b>
23	12535	5	N	<b>LOST VALLEY CREEK</b> Schlorff, 1999. show 8 excursions beyond the criterion out of 11 measurements made at the Lost Valley Road Bridge during 1998-1999.	<b>XQ54GH 0 12N 04W 02</b>	<b>pH</b>	Low pH	<b>Water</b>
23	35386	5	N	<b>MILL CREEK</b> Sargeant (2001) unpublished data show a 7-day mean of maximum daily temperature of 19.62 degrees C with week ending on 22 July 1995, with a maximum daily temperature of 20.94 degrees C from continuous measurements collected on 19 July 1995.	<b>UR68OS 3.518 14N 03W 34</b>	<b>Temperature</b>		<b>Water</b>
23	35940	5	N	<b>MILL CREEK</b> Sargeant (2001) unpublished data show a 7-day mean of maximum daily temperature of 19.09 degrees C with week ending on 19 July 1995, with a maximum daily temperature of 21.56 degrees C from continuous measurements collected on 19 July 1995.	<b>UR68OS 1.417 13N 03W 03</b>	<b>Temperature</b>		<b>Water</b>
23	12532	5	N	<b>STEARNS CREEK</b> Schlorff, 1999. show 9 excursions beyond the criterion out of 11 measurements made at the Twin Oaks Road Bridge during 1998-1999.  Schlorff, 1999. show 5 excursions beyond the criterion out of the difference of 5 measurements made at the Twin Oaks Road Bridge and the Pleasant Valley Road Bridge during 1998-1999.	<b>EV19TA 0.632 13N 03W 11</b>	<b>pH</b>	Low pH	<b>Water</b>
23	12533	5	N	<b>STEARNS CREEK</b> Schlorff, 1999. show 8 excursions beyond the criterion out of 12 measurements made at the Pleasant Valley Road Bridge during 1998-1999.	<b>EV19TA 4.406 13N 03W 24</b>	<b>pH</b>	Low pH	<b>Water</b>

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23	35393	5	N	<b>STILLMAN CREEK</b> Sargeant (2001) show excursions beyond the criterion from continuous measurements collected in 1998, 1999 and 2000.	MQ11YB 0 12N 04W 02	Temperature		Water
23	35394	5	N	<b>STILLMAN CREEK</b> Sargeant (2001) unpublished data show a 7-day mean of maximum daily temperature of 20.53 degrees C with week ending on 4 September 1998, with a maximum daily temperature of 20.95 degrees C from continuous measurements collected on 1 September 1998. Sargeant (2001) unpublished data show a 7-day mean of maximum daily temperature of 20.52 degrees C with week ending on 27 August 1999, with a maximum daily temperature of 21.31 degrees C from continuous measurements collected on 10 August 1999. Sargeant (2001) unpublished data show a 7-day mean of maximum daily temperature of 20.59 degrees C with week ending on 5 August 2000, with a maximum daily temperature of 20.82 degrees C from continuous measurements collected on 4 August 2000.	MQ11YB 3.5 12N 04W 14	Temperature		Water
23	35395	5	N	<b>STILLMAN CREEK</b> Sargeant (2001) show excursions beyond the criterion from continuous measurements collected in 1998, 1999 and 2000.	MQ11YB 5.639 12N 04W 23	Temperature		Water
23	35396	5	N	<b>UNNAMED CREEK</b> Sargeant (2001) unpublished data show a 7-day mean of maximum daily temperature of 19.43 degrees C with week ending on 23 August 2000, with a maximum daily temperature of 19.43 degrees C from continuous measurements collected on 23 August 2000.	IP53AA 0 16N 01W 27	Temperature		Water